

KLAY-INSTRUMENTS

The 'Flush Diaphragm Specialist'

We offer a complete range of Pressure and Level transmitters with all industrial process connections and flush diaphragms for the Food & Beverage, Pulp & Paper, water & Waste water, Chemical, Offshore and Marine industries.

Here are the major advantages from the **KLAY Flush Diaphragm Technology**:

1. Laser welded diaphragm

- Tested by Helium (gas tight)
- Hygienic design
- No o-rings used

2. Strong SS 316L diaphragm

- Standard polished ($Ra < 0.15\mu$)
- Flush with process

3. Wave structure (back-up) behind diaphragm

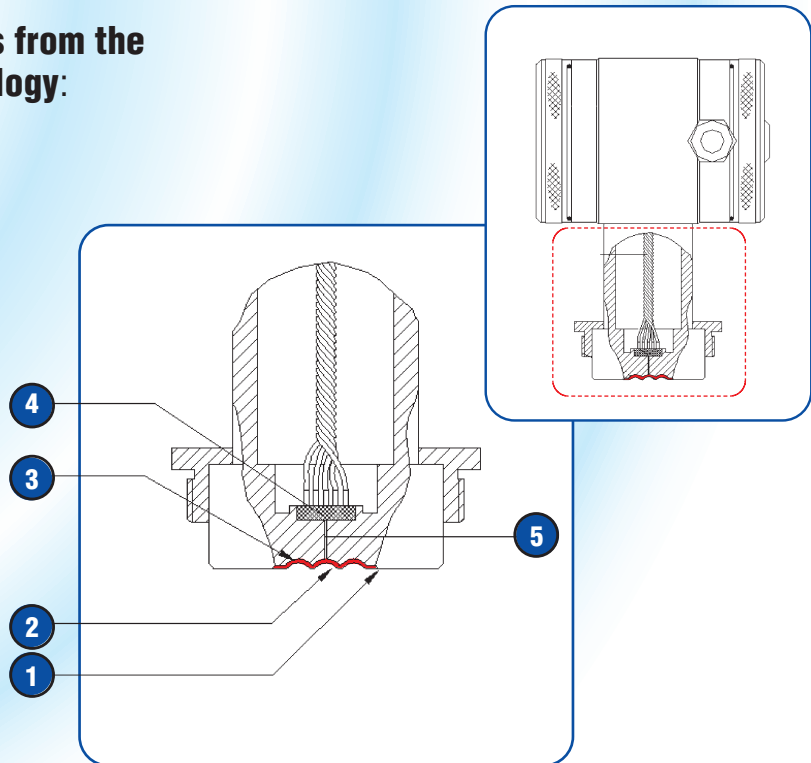
- Equal to diaphragm structure
- Good protection against overpressure
- Perfect Long term stability

4. Pressure sensor

- Build-in Temperature Sensor
- **Active** Temperature compensation
- Welded construction (no o-rings)
- High overpressures

5. Minimum oil filling between sensor and diaphragm

- Food grade oil
- High Temp oil (Option)

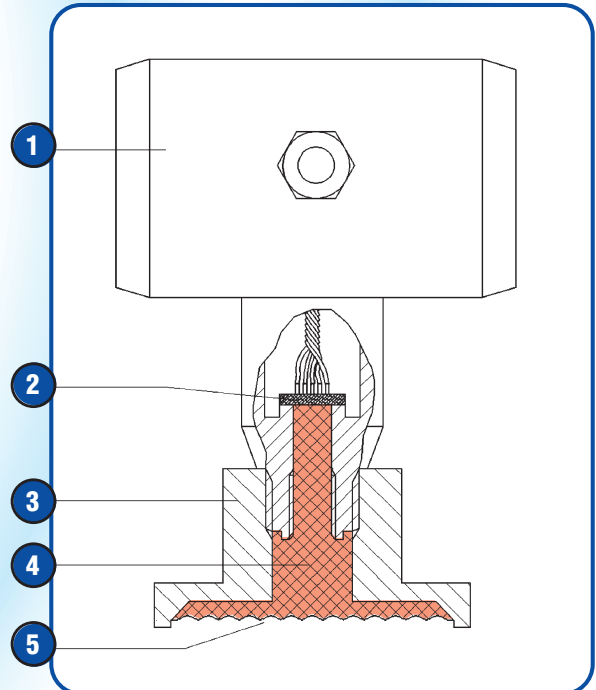




Advantages **KLAY** Flush Diaphragm Technology

Competitors with “oil filled seal” (Rosemount, ABB, Fuji, Siemens, Labom, etc)

1. Standard transmitter with G1/2” processconnection
(Mostly with aluminum housing, Klay SS housing)
2. Pressure sensor
3. **“Oil filled Seal”** with large diaphragm
4. Large amount of oil filling
No Temperature sensor behind diaphragm,
So bad or no temperature compensaton !
5. Very large diaphragm
(More sensitive for damaging)



Competitors with CERAMIC sensor/diaphragm (Vega, E+H)

1. Ceramic diaphragm

- Not polished (raw)
- Affected by Nitric Acid
- No protection against pressure spikes

2. O-ring

- O-ring grows old
- Must be periodically replaced
- Not gas tight
- Can not withstand all media

3. Ceramic sensor

- Bad on thermal shocks
- No integrated Temp. sensor

